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## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/823,031B

DATE: 12/12/2002

TIME: 15:01:45

Input Set : A:\EP.txt

Output Set: N:\CRF4\12122002\I823031B.raw

#12/  
Raw  
Seq.

3 <110> APPLICANT: Manoharan, Muthiah  
 4 Guzaev, Andrei P.  
 6 <120> TITLE OF INVENTION: Labeled Oligonucleotides, Methods For Making Same, And  
 Compounds Useful

7 Therefor

9 &lt;130&gt; FILE REFERENCE: ISIS-4723

11 &lt;140&gt; CURRENT APPLICATION NUMBER: 09/823,031B

12 &lt;141&gt; CURRENT FILING DATE: 2001-03-30

14 &lt;160&gt; NUMBER OF SEQ ID NOS: 21

16 &lt;170&gt; SOFTWARE: PatentIn version 3.1

18 &lt;210&gt; SEQ ID NO: 1

19 &lt;211&gt; LENGTH: 12

20 &lt;212&gt; TYPE: DNA

21 &lt;213&gt; ORGANISM: Artificial Sequence

23 &lt;220&gt; FEATURE:

24 &lt;223&gt; OTHER INFORMATION: Synthetic Oligonucleotide Sequence

26 &lt;400&gt; SEQUENCE: 1

27 tttttttttt tt

12

30 &lt;210&gt; SEQ ID NO: 2

31 &lt;211&gt; LENGTH: 20

32 &lt;212&gt; TYPE: DNA

33 &lt;213&gt; ORGANISM: Artificial Sequence

35 &lt;220&gt; FEATURE:

36 &lt;223&gt; OTHER INFORMATION: Synthetic Oligonucleotide Sequence

38 &lt;400&gt; SEQUENCE: 2

39 atgcattctg cccccaagga

20

42 &lt;210&gt; SEQ ID NO: 3

43 &lt;211&gt; LENGTH: 20

44 &lt;212&gt; TYPE: DNA

45 &lt;213&gt; ORGANISM: Artificial Sequence

47 &lt;220&gt; FEATURE:

48 &lt;223&gt; OTHER INFORMATION: Synthetic Oligonucleotide Sequence

50 &lt;220&gt; FEATURE:

51 &lt;221&gt; NAME/KEY: misc\_feature

52 &lt;222&gt; LOCATION: (1)..(6)

53 &lt;223&gt; OTHER INFORMATION: 2'-O-(2-methoxyethyl)

56 &lt;220&gt; FEATURE:

57 &lt;221&gt; NAME/KEY: misc\_feature

58 &lt;222&gt; LOCATION: (15)..(20)

59 &lt;223&gt; OTHER INFORMATION: 2'-O-(2-methoxyethyl)

62 &lt;220&gt; FEATURE:

63 &lt;221&gt; NAME/KEY: misc\_feature

64 &lt;222&gt; LOCATION: (3)..(3)

65 &lt;223&gt; OTHER INFORMATION: 5-methyl-2'-O-(2-methoxyethyl) cytidine

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68 <400> SEQUENCE: 3
69 agcttctttg cacatgtaaa                                20
72 <210> SEQ ID NO: 4
73 <211> LENGTH: 20
74 <212> TYPE: DNA
75 <213> ORGANISM: Artificial Sequence
77 <220> FEATURE:
78 <223> OTHER INFORMATION: Synthetic Oligonucleotide Sequence
80 <220> FEATURE:
81 <221> NAME/KEY: misc_feature
82 <222> LOCATION: (1)..(1)
83 <223> OTHER INFORMATION: dimethoxytrityl protecting group
86 <220> FEATURE:
87 <221> NAME/KEY: misc_feature
88 <222> LOCATION: (20)..(20)
89 <223> OTHER INFORMATION: 3' phosphate group
92 <400> SEQUENCE: 4
93 tgcatacccc aggccaccat                                20
96 <210> SEQ ID NO: 5
97 <211> LENGTH: 20
98 <212> TYPE: DNA
99 <213> ORGANISM: Artificial Sequence
101 <220> FEATURE:
102 <223> OTHER INFORMATION: Synthetic Oligonucleotide Sequence
104 <220> FEATURE:
105 <221> NAME/KEY: misc_feature
106 <222> LOCATION: (1)..(1)
107 <223> OTHER INFORMATION: dimethoxytrityl protecting group
110 <220> FEATURE:
111 <221> NAME/KEY: misc_feature
112 <222> LOCATION: (20)..(20)
113 <223> OTHER INFORMATION: 3' phosphorothioate group
116 <400> SEQUENCE: 5
117 tgcatacccc aggccaccat                                20
120 <210> SEQ ID NO: 6
121 <211> LENGTH: 20
122 <212> TYPE: DNA
123 <213> ORGANISM: Artificial Sequence
125 <220> FEATURE:
126 <223> OTHER INFORMATION: Synthetic Oligonucleotide Sequence
128 <220> FEATURE:
129 <221> NAME/KEY: misc_feature
130 <222> LOCATION: (20)..(20)
131 <223> OTHER INFORMATION: 3' phosphate group
134 <400> SEQUENCE: 6
135 tgcatacccc aggccaccat                                20
138 <210> SEQ ID NO: 7
139 <211> LENGTH: 20
140 <212> TYPE: DNA

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141 <213> ORGANISM: Artificial Sequence
143 <220> FEATURE:
144 <223> OTHER INFORMATION: Synthetic Oligonucleotide Sequence
146 <220> FEATURE:
147 <221> NAME/KEY: misc_feature
148 <222> LOCATION: (20)..(20)
149 <223> OTHER INFORMATION: 3' phosphorothioate group
152 <400> SEQUENCE: 7
153 tgcattcccc aggccacccat                                20
156 <210> SEQ ID NO: 8
157 <211> LENGTH: 20
158 <212> TYPE: DNA
159 <213> ORGANISM: Artificial Sequence
161 <220> FEATURE:
162 <223> OTHER INFORMATION: Synthetic Oligonucleotide Sequence
164 <220> FEATURE:
165 <221> NAME/KEY: misc_feature
166 <222> LOCATION: (20)..(20)
167 <223> OTHER INFORMATION: N-(1-pyrenylmethyl) iodoacetamide linked to a 3'
phosphorothioate
168      group
171 <400> SEQUENCE: 8
172 tgcattcccc aggccacccat                                20
175 <210> SEQ ID NO: 9
176 <211> LENGTH: 20
177 <212> TYPE: DNA
178 <213> ORGANISM: Artificial Sequence
180 <220> FEATURE:
181 <223> OTHER INFORMATION: Synthetic Oligonucleotide Sequence
183 <220> FEATURE:
184 <221> NAME/KEY: misc_feature
185 <222> LOCATION: (20)..(20)
186 <223> OTHER INFORMATION: 5-iodoacetamidofluorescein linked to a 3' phosphorothioate
group
189 <400> SEQUENCE: 9
190 tgcattcccc aggccacccat                                20
193 <210> SEQ ID NO: 10
194 <211> LENGTH: 20
195 <212> TYPE: DNA
196 <213> ORGANISM: Artificial Sequence
198 <220> FEATURE:
199 <223> OTHER INFORMATION: Synthetic Oligonucleotide Sequence
201 <220> FEATURE:
202 <221> NAME/KEY: misc_feature
203 <222> LOCATION: (2)..(2)
204 <223> OTHER INFORMATION: modified phosphorothioate group
207 <220> FEATURE:
208 <221> NAME/KEY: misc_feature
209 <222> LOCATION: (20)..(20)
210 <223> OTHER INFORMATION: modified phosphorothioate group
213 <400> SEQUENCE: 10

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214 tgcaccccc aggccaccat 20
217 <210> SEQ ID NO: 11
218 <211> LENGTH: 20
219 <212> TYPE: DNA
220 <213> ORGANISM: Artificial Sequence
222 <220> FEATURE:
223 <223> OTHER INFORMATION: Synthetic Oligonucleotide Sequence
225 <220> FEATURE:
226 <221> NAME/KEY: misc_feature
227 <222> LOCATION: (1)..(1)
228 <223> OTHER INFORMATION: modified phosphorothioate groups
231 <220> FEATURE:
232 <221> NAME/KEY: misc_feature
233 <222> LOCATION: (20)..(20)
234 <223> OTHER INFORMATION: modified phosphorothioate groups
237 <400> SEQUENCE: 11
238 tgcaccccc aggccaccat 20
241 <210> SEQ ID NO: 12
242 <211> LENGTH: 20
243 <212> TYPE: DNA
244 <213> ORGANISM: Artificial Sequence
246 <220> FEATURE:
247 <223> OTHER INFORMATION: Synthetic Oligonucleotide Sequence
249 <220> FEATURE:
250 <221> NAME/KEY: misc_feature
251 <222> LOCATION: (1)..(1)
252 <223> OTHER INFORMATION: cholesterol and linker or dialkylglycerol and linker
255 <400> SEQUENCE: 12
256 gcccaagctg gcatccgtca 20
259 <210> SEQ ID NO: 13
260 <211> LENGTH: 20
261 <212> TYPE: DNA
262 <213> ORGANISM: Artificial Sequence
264 <220> FEATURE:
265 <223> OTHER INFORMATION: Synthetic Oligonucleotide Sequence
267 <220> FEATURE:
268 <221> NAME/KEY: misc_feature
269 <222> LOCATION: (1)..(1)
270 <223> OTHER INFORMATION: t: 2'-O-MOE-rT
273 <220> FEATURE:
274 <221> NAME/KEY: misc_feature
275 <222> LOCATION: (1)..(1)
276 <223> OTHER INFORMATION: cholesterol and linker
279 <220> FEATURE:
280 <221> NAME/KEY: misc_feature
281 <222> LOCATION: (15)..(15)
282 <223> OTHER INFORMATION: t: 2'-O-MOE-rT
285 <220> FEATURE:
286 <221> NAME/KEY: misc_feature

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TIME: 15:01:45

Input Set : A:\EP.txt

Output Set: N:\CRF4\12122002\I823031B.raw

287 <222> LOCATION: (2)..(3)  
288 <223> OTHER INFORMATION: c: 2'-O-MOE-5-Me-rC  
291 <220> FEATURE:  
292 <221> NAME/KEY: misc\_feature  
293 <222> LOCATION: (16)..(16)  
294 <223> OTHER INFORMATION: c: 2'-O-MOE-5-Me-rC  
297 <220> FEATURE:  
298 <221> NAME/KEY: misc\_feature  
299 <222> LOCATION: (17)..(17)  
300 <223> OTHER INFORMATION: a: 2'-O-MOE-rA  
303 <220> FEATURE:  
304 <221> NAME/KEY: misc\_feature  
305 <222> LOCATION: (18)..(20)  
306 <223> OTHER INFORMATION: g: 2'-O-MOE-rG  
309 <220> FEATURE:  
310 <221> NAME/KEY: misc\_feature  
311 <222> LOCATION: (13)..(14)  
312 <223> OTHER INFORMATION: c: 2'-O-MOE-5-Me-rC  
315 <400> SEQUENCE: 13  
316 tccgtcatcg ctcctcaggg 20  
319 <210> SEQ ID NO: 14  
320 <211> LENGTH: 20  
321 <212> TYPE: DNA  
322 <213> ORGANISM: Artificial Sequence  
324 <220> FEATURE:  
325 <223> OTHER INFORMATION: Synthetic Oligonucleotide Sequence  
327 <220> FEATURE:  
328 <221> NAME/KEY: misc\_feature  
329 <222> LOCATION: (1)..(1)  
330 <223> OTHER INFORMATION: g: 2'-O-MOE-rG  
333 <220> FEATURE:  
334 <221> NAME/KEY: misc\_feature  
335 <222> LOCATION: (1)..(1)  
336 <223> OTHER INFORMATION: cholesterol and linker  
339 <220> FEATURE:  
340 <221> NAME/KEY: misc\_feature  
341 <222> LOCATION: (16)..(16)  
342 <223> OTHER INFORMATION: g: 2'-O-MOE-rG  
345 <220> FEATURE:  
346 <221> NAME/KEY: misc\_feature  
347 <222> LOCATION: (17)..(17)  
348 <223> OTHER INFORMATION: c: 2'-O-MOE-5-Me-rC  
351 <220> FEATURE:  
352 <221> NAME/KEY: misc\_feature  
353 <222> LOCATION: (18)..(20)  
354 <223> OTHER INFORMATION: g: 2'-O-MOE-rG  
357 <220> FEATURE:  
358 <221> NAME/KEY: misc\_feature  
359 <222> LOCATION: (2)..(2)

**VERIFICATION SUMMARY**

DATE: 12/12/2002

PATENT APPLICATION: US/09/823,031B

TIME: 15:01:46

Input Set : A:\EP.txt

Output Set: N:\CRF4\12122002\I823031B.raw